

### **Abstract of the Disclosure**

Smoke constituent reduction is achieved by resolving from puff-to-puff analysis at which location along a tobacco rod production of a particular smoke constituent is maximized, and locally applying an attenuator at said resolved location to reduce production of the constituent. A remainder of the rod is left untreated so as to minimize impact on taste and burn characteristics of the cigarette. Reduction of the first puff formaldehyde formation is achieved by treating the cigarette tip with salts, using Burley tobacco in the tip, increasing the rod density, ventilation at the tip, and thermal treatment of the tip. Other classes of smoke constituents such as TSNAs (tobacco specific nitrosamines), PAHs (polycyclic aromatic hydrocarbons), etc., in particular the PAHs of naphthalene, phenanthrene, pyrene, flouranthene and benzo(a)pyrene may be reduced with placement of a carbon-based and/or metallic disc at the tip and with practices of the invention herein.